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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
KHOSHNOODI, FARIBORZ

ART UNIT	PAPER NUMBER
2168	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/535,665	SEBBANE, DANNY
	Examiner	Art Unit	
	Fariborz Khoshnoodi	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-11* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *11 May 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *5/11/2005*.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Detailed Action

Claims objection

1.   Claim 1and 11 objected to because of the following informalities:

Claim 1 is objected to because it recites "an hierachical" in line 6. Also in claim 1 (line

6) the word "hierachical" needs to. be change to "hierarchical". Appropriate correction is

required.

Claim 11 is objected to because the claim depends to itself. For examining purposes

considered that claim 11 depended to claim 10. Appropriate correction is required.

Drawings

2.   The Drawing is objected to because of improper shading for figures 1-9. 37 CFR 1.84 (a)

(1) dictates the sole use of black and white drawings. Gray shading is not permitted. According

to 37 CFR 1.84 (m), shading must be in the form of thin lines spaced closely together.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject
matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112 (2nd). Use of the term "some" in line 1 renders

the claim indefinite. Examiner cannot establish pass/fail criteria with the term "some".

Claim 1 recites "the knowledge base" in line 1. There is no antecedent basis for this

limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office Action:

> A per son shall be entitled to patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-6 and 8-11 are rejected under 35 U.S.C. § 102(e) as being anticipated by Szabo

United States Patent No. 7,181,438 B1.

As per claim 1:

Szabo teaches a method comprising: **Submission of an hierachical query** *(i.e.,*

"The query generation process may contain a knowledge base

including a thesaurus that has predetermined and embedded

complex search queries, or use natural language processing, or

fuzzy logic, or tree structures, or hierarchical relationship or

a set of commands that allow persons seeking information to

formulate their queries."(Col. 8 lines 6-12)); **recording the queries of**

the organization, comprising saving-submitter and organization information *(i.e., "In*

a further refinement, search results found through a query

outside the directory, for example through a metasearch process,

can be organized under directory headings. In this case, the

directory may be queried as to whether and where it references a

web resource, and if it does, the resource(s) may be saved to

that (those) locations;"(Col. 57 lines 13-19)); **comparing queries using**

a weight matrix generated by a distance function *(i.e., "Frequency programs*

have been developed by the travel industry to promote customer

loyalty. An example of such a program is a "frequent flyer"

program. According to such a program, when a traveler books a

flight, a certain amount of "mileage points" is calculated by a

formula using the distance of the destination as a

parameter."(Col. 24 lines 21-26)); **and clustering of the queries into a**

semantic structure *(i.e., "This intelligent assistance preferably*

involves an interactive communication between the user and

search engine, wherein a context, e.g., semantic taxonomic

placement, of the search query is successively defined and

refined."(Col. 47 lines 3-6)).

As per claim 2:

Szabo teaches a method further comprising: **gathering data for the organization and**

entering it in the organization DB *(i.e., "In order to provide this*

capability, information retrieval systems must generally

categorize documents received from publishers (or drawn from

accessible databases) according to their subject, prior to

adding them to the database."(Col. 9 lines 12-16)).

As per claim 3:

Szabo teaches a method comprising the steps of: **gathering data into the organization**

DB *(i.e., "In order to provide this capability, information*

retrieval systems must generally categorize documents received

from publishers (or drawn from accessible databases) according

to their subject, prior to adding them to the database."(Col. 9

lines 12-16)); **generating a vector structure of the data** *(i.e., "The*

information is stored in an inverted index file, which may also

be used to calculate document link vectors for each hyperlink

pointing to a particular document."(Col. 22 lines 46-49)); **and using**

the vector structure in order to form semantic familiarities (clustering words, i.e.,

"connections") *(i.e., "When a query is entered, the search engine*

finds all document vectors for documents having the query terms

in their anchor text. A query vector is also calculated, and

the dot product of the query vector and each document link

vector is calculated. The dot products relating to a particular

document are summed to determine the relevance ranking for each

document."(Col. 22 lines 49-55)).

As per claim 4:

Szabo teaches a method further comprising **enhancing the queries for later pre-**

processing of the data, in order to best exploit the latter element of method 3 *(i.e.,*

"Advantageously, the information associated with this web page

may be updated and enhanced automatically, to represent a

history of use by the user." (Col. 49 lines 9-12)).

As per claim 5:

Szabo teaches a method wherein enhancing comprises: **enhancing words appearing in**

queries by multiplying the number of appearances with a constant *(i.e.,*

"Therefore, for example, user's query might be "sports", but

user selects the taxonomic node "baseball", or a web-page in

which the word "baseball" is prominent; user's query string

might profitably be expanded to "sports AND baseball," or just

"baseball," for the purpose of a search of other materials, for

example, through a metasearch procedure of other search engines.

By a like procedure, OR conditions and NOT (dissimilarity) might

be appended to user's query, or used to modify user's query, or
replace user's query, to enhance such a follow-on search."(Col.
76 lines 12-22)); **comparing the distribution of a word within the organization DB
and its distribution in Natural Language (NL)** (i.e., "User enters a string of
words onto a character-based "edit line" and then strikes the
"enter" key on user's keyboard or selects a search button using
a pointing device. The string of words may be fashioned by a
user into a Boolean logical sentence, employing the words "AND,"
"OR," and "NOT," but more typically the user enters a set of
words in so-called "natural language" that lack logical
connectors, and software called a "parser" takes user's natural
language query and estimates which logical connections exist
among the words."(Col. 3 lines 51-60)) ; **and weighting words appearances
in the DB and the queries relative to appearances in the NL** (i.e., "Words,
particularly simple verbs, conjunctions and prepositions are
often preemptively excluded from the term index as presumptively
carrying no significant informational weight. Various
heuristics can be employed to identify other words that appear
too frequently within a document collection to likely serve to
contextually differentiate the various documents of the
collection."(Col. 25 lines 24-30)).

As per claim 6:

Szabo teaches a method further comprising **clustering the data** *(i.e., "At the*

lowest level of hierarchy, the most basic data units are

organized into various sets, or cluster-objects of related

information.   At the next level of hierarchy, related cluster-

objects from the lower hierarchical level are organized into a

higher-level cluster-object."(Col. 17 lines 45-50)).

As per claim 8:

Szabo teaches a method further comprising: **using queries' data for searching**

information (implementing a search engine) *(i.e., "Generally speaking,*

search engines for the World Wide Web (WWW, or simply "Web") aid

users in locating resources among the estimated present one

billion addressable sites on the Web.   Search engines for the

web generally employ a type of computer software called a

"spider" to scan a proprietary database that is a subset of the

resources available on the Web."(Col. 1 lines 50-56)).

As per claim 9:

Szabo teaches a method comprising the steps of: **searching information using the**

queries' structure (clusters) *(i.e., "Generally speaking, search engines*

for the World Wide Web (WWW, or simply "Web") aid users in

locating resources among the estimated present one billion

addressable sites on the Web.   Search engines for the web

generally employ a type of computer software called a "spider"

to scan a proprietary database that is a subset of the resources

available on the Web." (Col. 8 lines 6-12)); **presenting queries' structure**

with respect to a new query (when a user presents a new query, the system rates the nearest

clusters according to the new query) *(i.e., "The search process can utilize*

any available index and search engine techniques including

Boolean, vector, and probabilistic, as long as a substantial

portion of the entire domain of archived textual data is

searched for each query and all documents found are returned to

the organizing process." (Col. 8 lines 12-17)); **and presenting submitted**

queries in order to facilitate the submission of a new query *(i.e., "The search*

results are then presented to the user and arranged by category

along with an indication as to the number of relevant documents

found in each category.   The user may then examine search

results in multiple formats, allowing the user to view as much

of the document as the user deems necessary." (Col. 8 lines 22-

27)).

As per claim 10:

Szabo teaches a method further comprising: **using the queries structure to create an**

organization map *(i.e., "graphic representation implying a specific*

search path that a user may take in examining the available

information, the interface system comprising means for

generating a coded data map reflecting the organization of the

entire information within the information base" (Col. 18 lines

31-35)).

As per claim 11:

Szabo teaches a method, wherein using the queries structure to create an organization

map comprises: **developing a method that facilitates the designation of experts concerning**

the requested data (i.e., "The SEMNET developers propose organizing

component data units of an information base into various levels

of hierarchy. At the lowest level of hierarchy, the most basic

data units are organized into various sets, or cluster-objects

of related information." (Col. 17 lines 43-48)); **and providing a**

graphical organization map of the data occurrences and the experts (i.e., "graphic

presentation means generating the dynamic graphic representation

based on the data map, the dynamic graphic representation

comprising at least one molecule for the first hierarchical

level of organization, the at least one first-hierarchical-level

molecule having at least one first-hierarchical-level thread of

multiple first-hierarchical-level nodes connected in sequence"

(Col. 18 lines 40-47)).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo United

States Patent No. 7,181,438 B1 in view of Everett United States Patent Publication No.

2004/0024790 A1.

As per claim 7:

Szabo also teaches a method, **using queries as a predisposed factor, thereby replacing**

the random factor when performing clustering (i.e., "However, in many

cases, cookies are preferably supplemented with or replaced by

information stored at the server level, and accessible to user

through a security recognition scheme. Thus, the cookie

preferably provides an address within a server database for

critical information, rather than the information itself."(Col.

60 lines 3-8)).

Szabo does not explicitly disclose for the overcoming an information bottleneck.

However, Everett teaches a method, **wherein clustering the data comprises: using**

information theories in order to assemble and represent the data, thereby overcoming an

information bottleneck *(i.e., "The KnOS's efficiency of operation,*

measured in processor time required per end-user transaction,

can be corrected, post implementation, to eliminate any

bottlenecks y identifying the correct "context" for each

bottleneck and then segmenting the VK Sets into dedicated tag

sets by context. All KnOS bottlenecks are related to clusters

of VK Sets with overly broad or muddled contexts" (Par. 441));

using queries as prior knowledge for the information bottleneck *(i.e., "Because the*

KnOS architecture is 100% parallel, the equivalent of the

relational select operation (step #6) can be separated from the

equivalent to the relationaljoin. The KnOS equivalent of the

join operation (pooling/filtering), which is the core bottleneck

of an RDBMS, can be run at any layer of the computing stack-the

database processor, the web application server or the

desktop." (Par. 425 lines 1-6)) ; **clustering data (agglomerative, sequential**

clustering) *(i.e., "However, the number of database processors can*

be expanded across a loosely coupled cluster architecture either

to service greater numbers of concurrent sessions or to service

disk farms that measure into the terabyte range." (Par. 412 lines

14-17));

Therefore, it would have been obvious to a person in the art at the time the invention was

made to modify the method disclosed in Szabo to have the overcoming an information

bottleneck. This modification would have been obvious because a person having ordinary skill

in the art, at the time the invention was made, having the teachings of Szabo and Everett before

him/her, to modify the system of Szabo to include the overcoming an information bottleneck of

Everett, since it is suggested by Everett such that, by spreading data over any number of servers

reduces contention *(i.e., "Because each Item is fully encapsulated*

with a primitive level of granularity, the data farm can be

spread across any number of data servers without increasing

contention. Also, because there is no need for sequence in the

disk arrangement, the Items can be arranged across the data

servers based on each one's request profile to balance

workload." (Par. 426 lines 1-7)).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Fariborz Khoshnoodi whose telephone number is 571-270-1005.

The examiner can normally be reached on M-Th every other F 8:00-4:00..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim Vo can be reached on 571-272-3642. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                        Fariborz Khoshnoodi
                                        Examiner
                                        Art Unit 2168 ·

FK *F.K.*

                          TM 3/12/07

                          TIM VO
            SUPERVISORY PATENT EXAMINER
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